

THE CLAIMS

We claim:

1. A ground transportation reservation system, comprising:
 - (a) at least one remote client computer inclusive of means for generating and transmitting reservation requests and related data therefrom;
 - (b) at least one remote service provider computer;
 - (c) a local host computer and host server having a network connection with both of said remote computers, said connection allowing data transfer between said host, and a client and a service provider respectively;
 - (d) within said host server, means for acquisition and formatting of data of a received reservation request to form a reservation record;
 - (e) means for validating said reservation record, for making later changes thereto, and entering said validated record into a first data structure of an operating system of said host server;

- (f) an intelligent software agent comprising an algorithm for selecting a service provider for task execution of said validated record, said algorithm comprising:
 - (i) a second data structure comprised of member service providers;
 - (ii) means for applying combinations of client and host-server specified criteria of provider rates service, geography, vehicle type, vehicle availability, personnel inclusive of languages spoken, insurance type held by service provider, and ranking by server-determined qualification, to said validated record; and
 - (iii) means for resolving ties or deadlocks between providers selected on a basis of said means (ii) selectable including either said server ranking of means (ii), rotation, or a random function;
- (g) means for advising a first selected service provider through said network connection, of its selection for execution of said reservation record;
- (h) means for obtaining a confirmation of acceptance of an offer of said record, from said selected provider;

- (i) means for reiterating use of said intelligent agent if said first selected provider declines execution of said reservation record or does not respond to an offer thereof; and
- (j) means for entering all accepted records into a third data structure and advising said client of the identity of a finally selected provider and the itinerary associated therewith.

- 2. The system as recited in Claim 1, further comprising:
a graphical user interface at said host computer.
- 3. The system as recited in Claim 2, further comprising:
a database of client preference parameters for use by said (f)(ii)
of said algorithm.
- 4. The system as recited in Claim 3, in which said client-to-host
data transfer occurs within a queue type data structure.
- 5. The system as recited in Claim 3 in which said client computer
comprises a travel agency legacy system.

6. The system as recited in Claim 3 in which said network connection of a client comprises an Internet connection.
7. A ground transportation reservation system, comprising:
 - (a) at least one remote client computer inclusive of means for generation and transmitting reservation requests and related data therefrom to a centralized host computer server;
 - (b) said centralized host computer server comprising means for:
 - (i) receiving reservation requests in a time-based queue data structure;
 - (ii) acquisition and formatting of data of a received reservation request to form a reservation record based upon said reservation requests and user criteria;
 - (iii) validating said reservation record, making changes thereto, and entering said validated record into a reservation database;
 - (iv) monitoring said queue data structure for changes to said validated record, and dynamically generating an updated reservation record responsive to reservation information changes;

- (v) validating said updating reservation record and entering said record into said reservation database;
 - (vi) transmitting said updated reservation record to said remote client computer; and
 - (vii) receiving confirmation of said updated record from said remote client computer.
- (c) at least one remote service provider computer inclusive of means for accepting or rejection of a validated reservation record from said centralized server; and
 - (d) an intelligent software agent for selecting a service provider for client task execution of said validated record.
8. The system as recited in Claim 7 in which said intelligent agent comprises an algorithm for selecting a service provider for client task execution, said algorithm comprising:
- i. a data structure comprised of member service provider;
 - ii. means for applying to said validated record combinations of client and server specified criteria of provider rates, geography, vehicle type, vehicle availability, personnel inclusive of languages spoken, insurance type held by service provider, and ranking by server-determined qualification; and

iii. means for resolving deadlocks between providers selected as a result of said mean (ii) in selectable in accordance with either said server ranking, rotation of a list of qualified service providers within a given geography, or a random function relative to such said list.

9. The system as recited in Claim 8, further comprising:
means for reiterating use of said intelligent agent if a first selected service provider declines execution of said reservation record or does not respond to an offer thereof.

10. The system as recited in Claim 9, further comprising:
means for entering all accepted records into a further data structure and advising said client of the identity of a finally selected provider and the itinerary associated therewith.

11. The system as recited as recited in Claim 9, further comprising:
means for remote client access to said intelligent software agent to enable a potential client to participate in service provider selection and use of parameters defined by said intelligent agent.